



Standard Procurement Quality Clauses

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PR/PO#: _____

The applicable QA Clauses are checked

☐ **QC-1** ***Price Anderson Amendments Act Regulatory Liability***

The item(s) or service(s) required by the Purchase Order/Contract is related to nuclear or radiological safety, and is therefore subject to the Price-Anderson Amendments Act – 1988 (PAAA) and federal regulations 10 CFR 820, 10 CFR 830 Subpart A, and/or 10 CFR 835. Failure to implement and comply with the requirements of this Purchase Order/Contract or failure to provide factual information with regard to the quality of the product(s) or service(s) rendered, could result in enforcement action by the Department of Energy (DOE) Office of Price Anderson Enforcement. Enforcement can result in civil penalties and/or criminal prosecution.

☐ **QC-2** ***Subtier Requirements Flow-down***

The Supplier shall incorporate all applicable Purchase Order requirements into all Supplier-issued procurement documents. Flow-down of purchase order requirements shall be verbatim (i.e., without change or modification). Lower-tier subcontracting requires flow-down of all applicable requirements to each supplier at any tier. Subcontracting restrictions are defined by the Contractor General Provisions.

☐ **QC-3** ***10 CFR 830, Subpart A***

The Supplier shall implement and maintain a quality program in accordance with the criteria of 10 CFR 830, Nuclear Safety Management, Subpart A, Quality Assurance.

☐ **QC-4** ***10 CFR 71, Subpart H***

The Supplier shall implement and maintain a quality system in accordance with 10 CFR 71, Subpart H, and QA Programs. NRC approval/licensing of the Supplier quality system may be accepted in lieu of review and evaluation by the Contractor.

☐ **QC-5** ***Calibration of WIPP Characterization SSCs***

The Supplier shall implement and maintain a calibration system in accordance with ANSI/NCSL 540-1, American National Standard For Calibration.

☐ **QC-6** ***Calibration of non-WIPP SSC***

The Supplier shall implement and maintain a calibration system in accordance with ANSI/NCSL Z540-1, American National Standard For Calibration, or an equivalent standard. The Contractor may accept accreditation of the Suppliers calibration system by National Cooperation for Laboratory Accreditation (NACLA) approved accreditation body, in lieu of Contractor review and approval.



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☐ **QC-7** ***ASME NQA-1-1989***

The Supplier shall implement and maintain a quality system in accordance with the applicable elements ASME-NQA-1-1989, Quality Assurance Requirements for Nuclear Facility Applications.

☐ **QC-8** ***ASME NQA-2a-1990 Addenda, Part 2.7***

The Supplier shall implement and maintain a Software quality system in accordance with the applicable elements of ASME-NQA-2a-1990 addenda, Part 2.7.

☐ **QC-9** ***Design Input/Calculations***

Design calculations for the item(s) shall be provided to the Contractor for approval, prior to initiating final design. Engineering calculations and analyses shall be fully checked by a qualified individual other than the originator, and shall be signed and dated as checked. All final submittals of calculations shall be bound and shall include the title and purpose of the calculation, a table of contents or index, complete list of references, design basis and complete list of assumptions (if any), methodology, and sufficient information to allow independent verification of the calculation. Calculations, which are performed by computer or with computer assistance, shall include a description of the hardware and software used, a description of the model employed if applicable, verification documentation of the computer program, and a copy of the computer input and output. All revisions to submitted calculations, as a result of comments by the Contractor or design changes by the Supplier, however minor, shall be resubmitted.

☐ **QC-10** ***Design Output***

Reproducible copies of applicable specifications, drawings, and/or descriptive catalog sheets shall be submitted as required by the Purchase Order. Product data shall include descriptive material, such as catalog data, diagrams, color charts, and other data published by the manufacturer, as well as evidence of compliance with safety and performance standards. To demonstrate conformance to the specified requirements, catalog numbers alone will not be acceptable. The data shall include the name and address of the nearest service and maintenance organization that regularly stocks repair parts. Product data submittals shall reference the applicable specification or drawing, and be complete for each item of work.



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☐ QC-11 ***Design Verification – Review***

Prior to release of the conceptual/preliminary/final design output, the Supplier shall:

- Schedule and conduct design review(s) as required by the Purchase Order
- Notify the Contractor a minimum of 14 days in advance of scheduled design review meetings
- Develop design review report documentation
- Submit design review documentation as required by the Purchase Order.

Notification to the Contractor shall include the meeting agenda and one reproducible copy of each document that constitutes the design output.

Design review documentation shall include:

- Design criteria
- Applicable design input and output documentation
- Review criteria
- Actions and Personnel Assignments.

☐ QC-12 ***Design Verification-Qualification***

Qualification testing shall be performed by the Supplier as required in the Purchase Order and Technical Specifications. Supplier use of lower-tier suppliers in the performance of qualification testing is subject to the approval of the Contractor prior to initiating test activities. Qualification test documentation shall be submitted for approval as required by the Purchase Order before initiating final design work. Qualification test procedures shall address the following for each performance parameter:

- Part No.
- Design Document No.
- PO No.
- Set-up Requirements
- Test Sequence
- Test Duration
- Calibration Requirements
- M&TE Requirements
- Personnel Qualifications
- Test Inputs/Outputs
- Environmental Conditions
- Data Recording Requirements
- Failure Definitions
- Failure Response Requirements.

☐ QC-13 ***New and Unused***

Unless otherwise specified, all materials, components, and parts, required by the Purchase Order, including those permanently installed into systems, subsystem, and/or assemblies shall be new and unused. Refurbished, rebuilt, or modified items are strictly prohibited unless specifically authorized in writing by the Contractor.

☐ **QC-14 *Actual Chemical and Physical Certified Material Test Report***

The Supplier shall provide Certified Material Test Report(s) (CMTR) for all material delivered under this Purchase Order. CMTR documentation shall be legible and reproducible. CMTR documentation shall include:

- Identification of actual chemical and physical tests performed on a representative sample of the material heat/melt/lot and the results of each test performed
- Heat/Melt/Lot No.
- Applicable specification
- Statement of Test Results Certification
- Identification of Testing and Certifying organization
- Traceability to the material and/or end item(s) delivered
- Contractor Purchase Order No.

Physical marking/labeling of material is required to maintain CMTR Traceability. As a minimum, marking shall include:

- Specification Designation
- Heat/Melt/Lot No.
- Manufacturer Identification.

☐ **QC-15 *Typical Chemical and Physical Certified Material Test Report***

The Supplier shall provide typical Certified Material Test Report(s) (CMTR) for material delivered under this Purchase Order. CMTR documentation shall be legible and reproducible. CMTR documentation shall include:

- Identification of actual chemical and physical tests performed on a representative sample of the material heat/melt/lot and the results of each test performed
- Heat/Melt/Lot No.
- Applicable specification
- Statement of Test Results Certification
- Identification of Testing and Certifying organization
- Traceability to the material and/or end items) delivered.
- Physical marking/labeling of material is required to maintain CMTR traceability.

As a minimum, marking shall include:

- Specification Designation
- Heat/Melt/Lot No.
- Manufacturer Identification.
- Unless otherwise specified, CMTR documentation shall be delivered With Shipment (WS) to the final destination.

☐ **QC-16 *Certificate of Conformance***

The Supplier shall certify that item(s) or service(s) delivered under this Purchase Order conform(s) in all respects to the Purchase Order requirements. Certifications shall be complete, accurate, legible, and reproducible. Incomplete or inaccurate certifications will be refused. Each certification shall be issued by the designated Supplier's certifying authority in accordance with established Supplier certification procedures. Unless otherwise authorized, the Supplier's Certificate of Conformance shall be submitted With Shipment (WS), to the shipping destination.



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☐ **QC-17** ***Certificate of Analysis – Calibration Gas***

The Supplier shall certify the gas constituents by analysis of the bottled gas. The analytical measurements shall be traceable to the National Institute of Standards and Technology (NIST). Certificates of Analysis shall include:

- Analyzed concentration
- Analytical accuracy
- Date of manufacture
- Date of expiration/shelf life (as applicable)
- Cylinder size
- Cylinder number
- Pressure of cylinder
- Statement of NIST traceability
- Signature of Supplier's certifying authority, to include position title and date

Unless otherwise specified by the Purchase Order, Certificates of Analysis shall be submitted with shipment.

☐ **QC-18** ***Certificate of Disposal or Destruction***

The Supplier shall certify that the disposal/destruction of each waste stream is manifested to the Supplier's treatment, storage, and disposal facility (TSDF) or to any alternative source within 30 days of disposal/destruction.

The certificate shall include:

- Manifest No.
- Applicable Disposal Facility Waste Acceptance Approval No.
- Applicable EPA Waste Code(s)
- Waste Stream Weight and Volume
- Disposal Facility Name, Owner and Address

Signature of Supplier's certifying authority, to include position title and date.

☐ **QC-19** ***Traceability***

Unless otherwise specified by the Purchase Order, all items delivered shall be traceable to the raw material heat/melt/lot. Physical material marking (such as stenciling, stamping, free handwriting, or printing) shall be used for identifying steel products.

☐ **QC-20** ***Serialization***

The Supplier shall serialize all parts, components, subassemblies, and assemblies as required by this Purchase Order. Each item shall be serialized sequentially and consecutively. Unless otherwise specified, serial number schemes shall be developed, controlled, and implemented by the Supplier.

☐ **QC-21** ***Suspect Counterfeit Materials – General Requirements***

Unless otherwise specified, items required by the Purchase Order shall be procured directly from the original manufacturer or an authorized master distributor. Items delivered under this Purchase Order will be inspected by the Contractor for indications of suspect or counterfeit conditions. Detection by the Contractor of any suspect or counterfeit item leading to evidence of deliberate misrepresentation of any supplied item may result in an investigation into the validity of certification, fraud, and/or forgery.

☐ **QC-22** ***Fasteners***

High Strength fasteners (i.e., Grades 5, 8, 8.2, A325, and A490) received under this Purchase Order shall exhibit both grade marks and the manufacturer's identification symbol (head mark), as required by the applicable fastener specification. Mixed lots and fasteners without head markings, or with head markings identified on the United States Department of Energy (DOE) Head Mark List, are prohibited.

☐ **QC-23** ***Electrical***

Electrical items and equipment received under this Purchase Order shall exhibit legible amperage and voltage ratings, operating parameters, and the product manufacturer's label and identification. Items shall be supplied in the manufacturer's original packaging, and as applicable to the item, exhibit a Nationally Recognized Testing Laboratory (NRTL) label (e.g., Underwriters Laboratory [UL], Factory Mutual [FM], Canadian Safety Association for use in the U.S. [CSA for U.S.], etc.). Any questions will be directed to AMWTP Electrical Authority Having Jurisdiction (AHJ). The AMWTP Electrical AHJ is still required to initiate the required AHJ determination when accepting other than an NRTL listed item. (Note, Conforming to European (CE) is not an acceptable NRTL within the DOE complex.)

☐ **QC-24** ***Piping***

Piping and piping system components delivered under this Purchase Order shall be supplied in the manufacturer's original packaging and/or containers, as applicable to the item. Piping products (pipe, fittings, flanges, etc.) shall clearly exhibit and maintain all markings as required by the applicable ordering data or specification(s). Piping system components (valves, pumps, etc.) shall clearly exhibit and maintain all markings as required by the ordering data or specifications and the original manufacturer's labels and identification.

☐ **QC-25 *Control and Reporting of Nonconforming Items***

Nonconformances identified by the Supplier, shall be controlled to prevent the delivery of nonconforming items to the Contractor. Nonconforming items identified by the Supplier shall be submitted to the Contractor for approval with a recommended disposition (e.g., use-as-is or repair) and technical justification. Reports of nonconformances related to this Purchase Order or any documentation required by this Purchase Order, shall be submitted to the Contractor for approval when any one of the following conditions exist:

- Technical or material requirements are violated; or
- A requirement in the Supplier documents which have been approved by the Contractor, is violated; or
- The nonconformance cannot be corrected by continuation of the original manufacturing process or by rework; or
- The item does not conform to the original requirements even though the item can be restored to a condition such that capability or the item to function is unimpaired.

The Contractor retains the right to verify implementation of the approved nonconformance disposition.

☐ **QC-26 *Inspection and Test Failure***

The Supplier shall notify the Contractor of each required hardware/software inspection or test failure within 24 hours of the occurrence. The Supplier shall provide the Contractor with a complete written description of the failure and the failure mode within three days after the failure. The description shall contain details of both the failure cause and the proposed corrective action. Upon discovery of a failure, the inspection/test may be continued to determine secondary and other areas of failures, unless the initial failure would invalidate subsequent test results or impose a safety hazard or excessive economic burden. The written description shall be submitted to the Contractor for approval. Contractor approval of the Supplier's proposed corrective action is required prior to re-inspection or retesting.

☐ **QC-27 *Manufacturing, Inspection, and Test Plan***

The Supplier shall submit a Manufacturing, Inspection, and Test Plan as required by this Purchase Order for Contractor approval. The plan shall detail the fabrication, assembly, installation, inspection, examination, and/or test processes to be performed. The plan shall be submitted prior to Supplier initiation of any manufacturing, inspection, or test activity, for incorporation of Contractor source inspection hold points.



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☐ **QC-28** ***Inspection and Test Data***

Inspection or test data required by this Purchase Order shall include the following as applicable:

- Part, Drawing, and Specification No.
- Serial No.
- Heat/melt Identification of Raw Material
- Lot Identification of Each Item
- Characteristic Subject to Inspection
- Inspection Sequence
- Acceptance Criteria and Source
- Inspection Results
- Examination Method
- Measuring and Test Equipment (M&TE)
- Inspection Setup
- Environmental Conditions
- Test Personnel Identification.

Dated Approval Signature by Supplier authorized representative.

☐ **QC-29** ***Special Processes***

Special processes used by the Supplier, such as welding, heat treatment, and nondestructive testing shall be performed in accordance with Supplier-qualified and approved procedures. Supplier-qualified procedures shall be submitted for contractor review and approval as required by this Purchase Order and shall include the following:

- Process Parameters
- Process Control Measures
- Environmental Conditions
- Qualification Requirements
- Calibration Requirements
- Acceptance Criteria and Source
- Records.

☐ **QC-30** ***Personnel Qualification***

The Supplier shall submit personnel qualifications for all applicable NDE methods or other special processes, in accordance with this Purchase Order. Personnel qualification shall comply with the Supplier's ASNT-TC-1A based Written Practice and include the following, as applicable:

- Qualifications of Certifying Authority
- Identification of Certified Personnel
- Basis of Certified Personnel Qualification
- Nondestructive Testing (NDT) Method and Certification Level
- Initial Certification and Certification Expiration Date(s).



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☐ **QC-31** ***Welding Fabrication***

The Supplier shall maintain and submit weld history data for each weld, in accordance with this Purchase Order. Weld history records shall include the following:

- Weld Map
- Weld Date
- Weld ID
- Weld Procedure
- Acceptance Criteria
- Fit-up Inspection
- Welder ID
- Filler Metal Heat No.
- Base Metal Heat No.
- NDE Method and Results.

☐ **QC-32** ***Source Verification-First Article***

Prior to initiating fabrication of any production unit/lot of items required by this Purchase Order, the Supplier shall produce and present a completed first article to the authorized Contractor representative for inspection. Production of additional units/lots requires the written approval of the authorized Contractor representative. All units or lots subjected to first-article inspection shall be permanently marked as the "First Article."

☐ **QC-33** ***Supplier Quality Release***

The Supplier shall obtain a Supplier Quality Release (SQR) from the authorized AMWTP Procurement Representative prior to shipment of items required by this Purchase Order to the specified final destination. The shipment authorization SQR is contingent on all documents required prior to shipment being approved by AMWTP. The requester of the item is responsible to verify that all documentation and submittals required prior to shipment of the item have been approved by AMWTP. Items received by the Contractor without the required SQR documentation will not be accepted.

☐ **QC-34** ***Shelf Life-Operational Data***

The Supplier shall submit any operational or shelf-life limitations of any item or of any portions of any item, delivered under this Purchase Order.

When the limitation is operational, the Supplier shall indicate the date and/or cycle by which the useful life will be expended. The Supplier shall also identify any environmental factors necessary to achieve the indicated useful life or cycles and the techniques that should be employed by the Contractor in recognition of the limitation.

When the limitation is shelf-life, the Supplier shall indicate the cure or manufacture date, the shelf-life expiration date, the storage environment, and any special handling conditions that are required to achieve the stated life. If the limited shelf-life item is individually packaged (as contrasted to its being installed as part of an overall assembly), the item's package shall bear the foregoing information.

The Supplier shall not supply any item or portion of any item with an operational or shelf-life duration in excess of 20% expired, at time of delivery. For those materials whose nature make it possible to extend the shelf-life by submitting a sample to requalification testing, the Supplier shall submit a copy of the test, the recommended shelf-life extension time, and the acceptance/rejection criteria of the test. The Supplier shall furnish the cure date, assembly date, part name and number, compound number, and manufacturer's identification (if different from part number) for parts (synthetic or natural) installed in assemblies delivered. This information shall be identifiable to the assembly to which it applies.

Unless otherwise authorized, by the Purchase Order, all shelf/operational life submittals shall be With Shipment (WS) to the final destination.

☐ **QC-35** ***Receiving Inspection***

All deliverables required by this Purchase Order will be inspected and/or tested for acceptance by the Contractor at the final destination. Inspections/tests performed are intended to verify product compliance with the Purchase Order requirements to include all physical and chemical characteristics and all required documentation. All discrepancies in product quality and/or documentation will be documented and reported in accordance with the Contractors internal procedures. All reported discrepancies require resolution prior to acceptance and payment.

☐ **QC-36** ***Certificate of Calibration***

The Supplier shall provide a Certificate of Calibration report, traceable to the instrument or component requiring calibration. The Certificate of Calibration shall include:

- Identification of the item being calibrated
- Date calibrated
- Identification of the calibration source
- Calibration results (data and status) including any out of calibration conditions
- Calibration action taken (adjusted, repaired, new value assigned, derated, etc.).

☐ **QC-37 *Standard Process HEPA Filters (24 × 24 × 11-1/2 in. or smaller)***

A certification of conformance to the applicable U.S. codes and standards will be provided with each process HEPA filter used at the AMWTP.

The certificate will state that:

- Each filter has been tested at the nominal rated capacity listed in ASME AG-1-2009, Section FC, Table FC-4110 (or, if not listed, as proportional to those listed values after factors for physical constraints are considered) and at 20% of that capacity for penetration only. The penetration at both flows shall not exceed 0.03% at rated flow.
- The filters supplied were manufactured utilizing materials, testing, and methods of construction consistent with filters that have been qualified in accordance with ASME AG-1-2009, Section FC-5000. The filters have been factory tested in accordance with ASME AG-1-2009, Section FC-5200.
- The filters supplied meet the applicable performance and construction requirements of DOE-STD-3020-2005.
- The filter media utilized for the construction of the HEPA filters supplied on this order is in compliance with ASME AG-1-2009, Section FC, and Appendix FC-1.
- A label indicating compliance by the manufacturer with the requirement of UL 586 classification to flammability and performance only is attached to each filter.

☐ **QC-38 *Circular/Radial HEPA Filters***

A certification of conformance to the applicable U.S. codes and standards will be provided with each circular/radial HEPA filter used at the AMWTP.

The certificate will state that:

- Each filter has been tested at the nominal rated capacity listed in ASME AG-1-2009, Section FK, Table FK-4000-1 or FK-4000-2, as applicable (or, if not listed, as proportional to those listed values after factors for physical constraints are considered), and at 20% of that capacity for penetration only. The penetration at both flows shall not exceed 0.03% at rated flow.
- The filters supplied were manufactured utilizing materials, testing, and methods of construction consistent with filters that have been qualified in accordance with ASME AG-1-2009, Section FK-5000. The filters have been factory tested in accordance with ASME AG-1-2009, Section FK-5600.
- The filters supplied meet the applicable performance and construction requirements of DOE-STD-3020-2005.
- The filter media utilized for the construction of the HEPA filters supplied on this order is in compliance with ASME AG-1-2009, Section FK.

A label indicating compliance by the manufacturer with the requirement of UL 586 classification to flammability and performance only is attached to each filter.

☐ **QC-39 *Storage Handling and Maintenance Requirements***

The Supplier shall provide any storage, handling, and maintenance requirements associated with materials being supplied as part of this Purchase Order.



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☐ QC-40 **Commercial Grade Dedication**

Safety Significant (Class I) Commercial Grade Items (CGIs) or services included in this purchase shall be dedicated to a specific end use after verification of critical characteristics identified by a technical review as required by NQA-1, 2008, Basic Requirement 7 and Subpart 2.14. The dedication process may be done by the Vendor, if the following requirements are met:

- Vendor's QA program has been evaluated by AMWTP
- Vendor is placed on the Approved Vendor List (AVL)
- Vendor's QA program ensures NQA-1 CGIs dedication requirements are flowed down to any affected subtier vendor(s).

Alternately, the dedication process may be performed by the AMWTP as specified on the procurement documents.

☐ QC-41 **ASME NQA-1-2008**

The Supplier shall implement and maintain a quality system in accordance with the applicable elements of ASME-NQA-1-2008, Quality Assurance Requirements for Nuclear Facility Applications.